71.(New) A method of forming a solder ball contact, consisting essentially of:

forming a metal contact pad on a substrate;

forming an insulating layer on the metal contact pad;

removing a portion of the insulating layer to expose a portion of the metal contact pad, thereby forming an exposed portion of the metal contact pad, the exposed portion having a predetermined diameter;

immersing the substrate in molten solder;

depositing solder on the exposed portion of the metal contact pad using selective deposition, thereby forming a solder contact; and

annealing the solder contact to form a solder ball contact having a diameter in a range of about 2.5 microns to no greater than 100 microns.

72. (New) A method of forming a solder ball contact, comprising:

forming a metal contact pad on a substrate;

forming an insulating layer on the metal contact pad;

forming a resist layer on the insulating layer;

patterning the resist layer to define a future exposed portion of the metal contact pad;

removing a portion of the insulating layer to expose a portion of the metal contact pad, thereby forming the exposed portion of the metal contact pad, the exposed portion having a predetermined diameter;

electrolytically depositing solder on the exposed portion of the metal contact pad, thereby forming a solder contact extending below the resist layer and below a surface of the insulating layer;

removing the resist layer, thereby exposing the solder contact above a surface of the insulating layer; and

annealing the solder contact to form a solder ball contact having a diameter in a range of about 2.5 microns to no greater than 100 microns.

73. (New) A method of forming a solder ball contact, comprising:

forming a metal contact pad on a substrate;

forming an insulating layer on the metal contact pad, wherein the insulating layer has a thickness of approximately 1.5 microns;

forming a resist layer on the insulating layer;

patterning the resist layer to define a future exposed portion of the metal contact pad;

removing a portion of the insulating layer to expose a portion of the metal contact pad, thereby forming the exposed portion of the metal contact pad, wherein the exposed portion of the metal contact pad has a diameter of approximately 2 microns;

electrolytically depositing lead on the exposed portion of the metal contact pad, thereby forming a solder contact extending below the resist layer and below a surface of the insulating layer, wherein the solder contact has a thickness of approximately 2.33 microns;

removing the resist layer, thereby exposing the solder contact above a surface of the insulating layer; and

annealing the solder contact to form a solder ball contact.

74. (New) A method of forming a solder ball contact, comprising:

forming a metal contact pad on a substrate;

forming an insulating layer on the metal contact pad;

forming a resist layer on the insulating layer;

patterning the resist layer to define a future exposed portion of the metal contact pad;

removing a portion of the insulating layer to expose a portion of the metal contact pad, thereby forming the exposed portion of the metal contact pad, the exposed portion having a predetermined diameter;

electrolytically depositing a first metal layer on the exposed portion of the metal contact pad;

electrolytically depositing a second metal layer on the first metal layer, wherein the first

metal layer and the second metal layer form a solder contact extending below the resist layer and below a surface of the insulating layer;

removing the resist layer, thereby exposing the solder contact above a surface of the insulating layer; and

annealing the solder contact to form a solder ball contact having a diameter in a range of about 2.5 microns to no greater than 100 microns.

75. (New) A method of forming a solder ball contact, comprising:

forming a metal contact pad on a substrate;

forming an insulating layer on the metal contact pad, wherein the insulating layer has a thickness of approximately 1.5 microns;

forming a resist layer on the insulating layer;

patterning the resist layer to define a future exposed portion of the metal contact pad;

removing a portion of the insulating layer to expose a portion of the metal contact pad, thereby forming the exposed portion of the metal contact pad, wherein the exposed portion of the metal contact pad has a diameter of approximately 2 microns;

electrolytically depositing a layer of lead on the exposed portion of the metal contact pad, wherein the layer of lead has a thickness of approximately 0.91 microns;

electrolytically depositing a layer of tin on the layer of lead, wherein the layer of tin has a thickness of approximately 1.42 microns, further wherein the layer of lead and the layer of tin form a solder contact extending below the resist layer and below a surface of the insulating layer, the solder contact having a thickness of approximately 2.33 microns;

removing the resist layer, thereby exposing the solder contact above a surface of the insulating layer; and

annealing the solder contact to form a solder ball contact.